

## ABSTRACT

An inverse query engine system having a cache integrated therein and methods for maintaining the cache are described herein. Entities storing filters in the inverse query engine cache thus do not have to maintain an individual cache to maintain the filters. The inverse query engine system cache is maintained within a bounded size by removing expired filters from the cache and trimming the cache to an optimal size when the cache reaches a maximum size. In the event that filter size cannot be determined efficiently, weights may be associated with filters stored in the cache, each weight identifying an estimate of a filter size. The weights are used to determine cache size and to maintain the cache size within particular bounds.